|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Name** | **Subscript** | **Dimensions** |
| Enthalpy – stagnation | H | O | Stream surface |
| Static enthalpy at stage exit |  | EXIT | Stage number |
| Static enthalpy between rows of stage |  | MID | **Stage number** |
| Stagnation enthalpy at stage exit |  | OEXIT | **Stage number** |
| Stagnation enthalpy between rows of stage |  | OMID | **Stage number** |
| Velocity | V |  | Stream surface |
| **?** |  | MLOCALL | Stage number x stream surface |
| **Meridional velocity ratio relative to leading edge of first rotor?** |  | MRAT |  |
| Entropy | S |  | “ |
| Entropy between rows of stage |  | MID | **Stage number** |
| Entropy at exit of stage |  | EXIT | **Stage number** |
| Pressure | P |  | Stream surface |
| Static pressure between rows of stage |  | MID | **Stage number** |
| Static pressure at exit of stage |  | EXIT | **Stage number** |
| Stagnation pressure at exit of stage |  | O\_EXIT | **Stage number** |
| Stagnation pressure |  | O | Stream surface |
| Temperature **static?** | T |  | “ |
| Gamma | G |  | “ |
| Speed of sound | VS |  | “ |
| Density | RHO |  | “ |
| Exit density for first half of stage |  | MID | “ |
| Exit density for second half of stage |  | EXIT | “ |
| Wetness fraction | WET |  | “ |
| Stage loading | PSI |  | “ |
| Flow coefficient | PHI |  | “ |
| Change in stagnation enthalpy across stage | DHO |  | “ |
| Efficiency | ETA |  | **Stage number** |
| Rotational speed | U |  |  |
| Axial velocity | VX |  |  |
| Axial velocity in first row of stage |  | IN |  |
| Axial velocity in second row of stage |  | OUT |  |
| Aspect ratio of first row (total blade length over chord) | ASPN |  | **Stage number** |
| Aspect ratio of second stage | ASPR |  | **Stage number** |
| Blade span (not equal to hub-casing distance) | SPAN |  |  |
| **???** | R |  |  |
| Store for values of RMEAN |  | MEANALL | Stage number x stream surface |
| **???** |  | HUBALL | Stage number x stream surface |
| **???** |  | TIPALL | Stage number x stream surface |
|  |  | HUB | Stream surface |
|  |  | TIP | Stream surface |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Axial coordinate | X |  |  |
|  | X | MEANALL | Stage number x stream surface |
|  |  | HUB |  |
|  |  | TIP |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  | N |  |  |
| Point number of leading edge of first blade row |  | LE1 | Int |
| Point number of trailing edge of first blade row |  | TE1 | Int |
| Point number of leading edge of second blade row |  | LE2 | Int |
| Point number of trailing edge of second blade row |  | TE2 | Int |
| List of all NLE1 |  | LE1\_ALL | Stage number |
| List of all NTE1 |  | TE1\_ALL | Stage number |
| List of all NLE2 |  | LE2\_ALL | Stage number |
| List of all NTE2 |  | TE2\_ALL | Stage number |
| **???** |  | SS\_STG |  |
| List of indices of leading edges of first blade row for each stage |  | LE1\_STG | Stage number |
| As above, trailing edge of first blade row |  | TE1\_STG | Stage number |
| As above, leading edge of second blade row |  | LE2\_STG | Stage number |
| As above, trailing edge of second blade row |  | TE2\_STG | Stage number |
| Number of stage currently being iterated over. Starts at 1 |  | STG | Int |
| Absolute flow angle into stage | ALPHA | \_IN | Stream surface |
| Absolute flow angle out of stage |  | \_OUT | Stream surface |
| Inter-row gap as fraction of first row axial chord | ROWGAP |  | Stage number |
| Inter-stage gap as a fraction of first row axial chord | STAGEGAP |  | Stage number |
| Deviation angle, first blade row | DEVN | 1 | Stream surface |
| Deviation angle, second blade row |  | 2 | Stream surface |
| Incidence angle, first blade row | AINC | 1 | Stream surface |
| Incidence angle, second blade row |  | 2 | Stream surface |
|  |  |  |  |
|  |  |  |  |